Goals for Next Year

1. Degree-Related Goals
   1. Qualifying Exam – December 21st, 2012
      1. When do I submit that I will be doing the Qual?
   2. Classes
      1. None over the next academic year
      2. Finish Mircea Project – After FPGA Paper Deadline (September 21st, 2012)
   3. Research
      1. FPGA Conference – February 22nd-24th, 2013
      2. Paper Deadline – September 21st, 2012
         1. Goal – Short Paper (4 Pages) or Poster
         2. First Draft – Finished by August 21st, 2012
         3. Outline – Finalized by August 1st, 2012
      3. Chip Tapeout – Summer 2013
         1. What’s on the chip?
            1. Intra-CLB Architectures

Base Case (VPR-Style)

Had been done in 1st Chip

Mini-FPGA

Had been done in 1st Chip

Hierarchical Interconnect

Layout – Winter 2012

Netlist – Fall 2012

Other Choices

Layouts – Winter 2012

Netlists – Fall 2012

* + - * 1. Global FPGA Architectures

Base Case Architecture

Same as on the 1st Chip

Custom Architecture

Dejan Interconnect

Implement in netlist form – Winter 2012

Determine Layout – Spring 2013

Custom Sense Amp

Layouts – Winter 2012

Designs – Fall 2012

Different Intra-CLB Connectivity

Layout for connectivities – Spring 2013

Netlists for connectivities – Winter 2012

Decisions on connectivities – Fall 2012

DVS

Layout for DVS – Spring 2013

Design for DVS – Winter 2012

Implementation Decisions for DVS – Fall 2012

* + 1. FPGA Toolflow
       1. Layout Generator
          1. Generate full layout of entire FPGA, as well as individual components – Spring 2013
          2. Create Layouts Generation Script from VPR – Winter 2012
          3. Complete Understanding of how Layout Generation Will Be Accomplished – Mid-Fall 2012
          4. Understanding of Pycell – End of Summer 2012
       2. Netlist Generator
          1. Script to Generate Full Netlist from VPR Files

CLBs

Routing

Intra-CLB Routing

* + - * 1. Develop Script to create netlist for each component from VPR output

Global Routing – End of Summer 2012

CLBs – Mid-Fall 2012

Intra-CLB Routing – Winter 2012